

IN THE CLAIMS

1. (Original) A medical grade deformer, comprising:
an axial member; and
5 a pliable tube mounted on said axial member and adapted to be deformed from a first, narrower diameter, configuration to a second, greater diameter, configuration.
2. (Original) A deformer according to claim 1, wherein said tube is slotted through its thickness.
- 10 3. (Original) A deformer according to claim 1, wherein said tube is not slotted.
4. (Original) A deformer according to claim 1, comprising at least one end engaging one end of said tube and adapted to apply compressive force to said tube for achieving said
15 deformation.
5. (Original) A deformer according to claim 4, comprising at least a second end one end engaging a second end of said tube and adapted to cooperate with said first end to compress said tube.
- 20 6. (Original) A deformer according to claim 5, wherein said two engaging ends and said axial member lock to maintain said pliable tube in a greater diameter configuration.
7. (Original) A deformer according to claim 1, wherein said tube changes configuration by
25 axial compression thereof.
8. (Original) A deformer according to claim 1, wherein said axial member is rigid.
9. (Original) A deformer according to claim 1, wherein said axial member is flexible.
- 30 10. (Original) A deformer according to claim 1, wherein said axial member extends out of said tube and is attached to a handle.

11. (Original) A deformer according to claim 1, wherein said axial member comprises a release mechanism for release of said deformer from a delivery system.

12. (Original) A deformer according to claim 11, wherein said axial member comprises a locking mechanism for locking of said deformer in a greater diameter configuration in conjunction with release.

13. (Original) A deformer according to claim 1, wherein said deformer includes a channel adapted for bone filler flow.

14. (Original) A deformer according to claim 13, wherein said channel is formed in said axial member.

15. (Original) A deformer according to claim 13, wherein said channel is formed between said axial member and said tube.

16. (Original) A deformer according to claim 1, wherein said axial member extends from said tube and is adapted to function as a hinge of a joint.

17. (Original) A deformer according to claim 1, wherein said deformer forms a bone attachment unit for a prosthesis.

18. (Original) A deformer according to claim 1, comprising an enclosing bag, which surrounds said tube in said second configuration.

19. (Original) A deformer according to claim 18, wherein said bag is bio-degradable in the body.

20. (Original) A deformer according to claim 18, wherein said bag is porous.

21. (Original) A deformer according to claim 1, wherein said deformer defines a general volume in the shape of a cylinder when in said second configuration.

22. (Original) A deformer according to claim 1, wherein said deformer defines a general volume in the shape of a truncated pyramid when in said second configuration.
23. (Original) A deformer according to claim 1, wherein said deformer defines an axially
5 rotationally asymmetric general volume when in said second configuration.
24. (Original) A deformer according to claim 1, wherein said deformer defines a predetermined general volume when in said second configuration.
- 10 25. (Original) A deformer according to claim 1, wherein said deformer comprises a set of axially contiguous zones with different material properties.
26. (Original) A deformer according to claim 1, wherein said deformer has a non-smooth outer surface in said second configuration.
- 15 27. (Original) A deformer according to claim 1, wherein said deformer is stiff enough, when in said second configuration to resist a trans-axial force of at least 50Kg.
28. (Original) A deformer according to claim 1, wherein said deformer, when in said
20 second configuration has an axial applied force of at least 2Kg.
29. (Original) A deformer according to claim 1, wherein said pliable material has a shore hardness of between 50A and 90D.
- 25 30. (Original) A deformer according to claim 1, wherein said pliable material is non-metallic.
31. (Original) A deformer according to claim 1, wherein said pliable material is polymeric.
- 30 32. (Original) A deformer according to claim 1, wherein said deformer includes at least one axial thread.
33. (Original) A deformer according to claim 1, wherein said deformer includes at least one circumferential thread.

34. (Original) A deformer according to claim 1, wherein said deformer, in said second configuration, defines a general volume and wherein said deformer fills at least 30% of said volume.

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35. (Original) A deformer according to claim 1, wherein said deformer, in said second configuration, defines a general volume and wherein said deformer fills at least 50% of said volume.

10 36. (Original) A deformer according to claim 1, wherein said tube defines a plurality of slots, such that when deformed to the second configuration, a plurality of axially displaced leaves extend from said tube to define said second configuration.

37. (Original) A deformer according to claim 36, wherein said tube defines at least three
15 axially displaced leaves.

38. (Original) A deformer according to claim 36, wherein adjacent leaves support each other, in said second configurations.

20 39. (Original) A deformer according to claim 36, wherein an end leaf is shorter than a non-end leaf.

40. (Original) A deformer according to claim 36, wherein an end leaf is supported, on one side thereof, by an end cap of said deformer.

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41. (Original) A deformer according to claim 36, wherein adjacent leaves deform each other.

42. (Original) A deformer according to claim 36, wherein at least 50% of the leaves are
30 deformed from a plane.

43. (Original) A deformer, comprising a non-inflatable substantially non-absorbent deformable non-metallic body having two configurations, a first configuration in which said body has a narrower diameter and a second configuration in which said narrower diameter is

greater, wherein said deformer is adapted to remain substantially undeformed under a force of over 10 Kg and wherein said deformer is sized for positioning inside a human vertebra.

44. (Original) A deformer according to claim 43, wherein said deformer is adapted to
5 remain substantially undeformed when in a human lumbar vertebra in standing condition.

45. (Original) A deformer according to claim 43, wherein said deformer is self-expanding.

46. (Original) A deformer according to claim 43, as part of kit including a spinal access
10 tool.

47. (Original) A method of spinal surgery, comprising:
inserting a non-inflatable non-absorbent deformable deformer into a vertebra; and
deforming said deformer such that cortical bone of vertebral faces of said vertebra,
15 move relative to each other.

48. (Original) A method of treating a bone, comprising:
inserting a unsealed pliable element into the bone; and
mechanically deforming the pliable element such that said pliable element applies
20 deforming force on the bone.

49. (Original) A method according to claim 48, wherein said pliable element comprises at least one open aperture of cross-section greater than 0.5x0.5 mm.

25 50. (Original) A method according to claim 48, wherein said bone comprises a vertebral bone.

51. (Original) A method according to claim 48, wherein said bone comprises a long bone.

30 52-61. (Cancelled)